

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

INFORMATION DISCLOSURE CITATION

FEB 06 2003

(Use several sheets if necessary)

Applicant(s)

Shiro SAKAI

Filing Date

05/07/2002

Group Art Unit

2826

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
PB	A1	3,909,929	10/07/1975	Debasis	29	590	
PB	A2	5,786,233	07/28/1998	Taskar et al.	438	46	
fr	A3	6,191,436	02/20/2001	Shibata et al.	257	91	
PB	A4	6,242,328	06/05/2001	Shin	438	518	

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
PB	B1	EP 0 180 222 A2	05/07/1986	EPO	H01L	31/18		
PB	B2	EP 0 180 222 A3	05/07/1986	EPO	H01L	21/308		
fr	B3	EP 0 723 303 A2	07/24/1996	EPO	H01L	33/00		
fr	B4	EP 0 723 303 A3	05/28/1997	EPO	H01L	33/00		
R	B5	EP 0 731 490 A2	09/11/1996	EPO	H01L	21/033		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

fr	C1	Patent Abstracts of Japan, Publication No. 07097300, Publication Date 04/11/1995, 1 page
fr	C2	Patent Abstracts of Japan, Publication No. 10178213, Publication Date 06/30/1998, 1 page

EXAMINER

Shirah PB

DATE CONSIDERED

05/11/02

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10/139,863

FEB 06 2003

2) (Use several sheets if necessary)

Applicant(s)

Shiro SAKAI

Filing Date

05/07/2002

Group Art Unit

2826

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

R	C3	Patent Abstracts of Japan, Publication No. 10242061, Publication Date 09/11/1998, 1 page
R	C4	Patent Abstracts of Japan, Publication No. 11186174, Publication Date 07/09/1999, 1 page

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FEB 06 2003:

Application Number

10/139,863

Applicant(s)

Shiro SAKAI

Filing Date

05/07/2002

Group Art Unit

2826

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

LAMINER

DATE CONSIDERED

AMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and considered. Include copy of this form with next communication to applicant.

PTO-A820

io form PTO-1449)

P09A/REV04

Patent and Trademark Office • U.S. DEPARTMENT OF COMMERCE

SHEET 3

OF 5

FEB 06 2003

(Use several sheets if necessary)

Applicant(s)

Shiro SAKAI

Filing Date

05/07/2002

Group Art Unit

2826

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

Pg	C7	European Search Report dated 11/11/2002, 4 pages
Pg	C8	European Search Report dated 11/27/2002, 4 pages

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FEB 06 2003.

(Use several sheets if necessary)

Applicant(s)

Shiro SAKAI

Filing Date

05/07/2002

Group Art Unit

2826

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

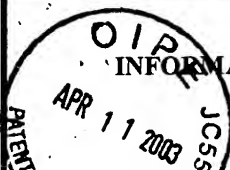
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

PK	C9	European Search Report dated 01/08/2003, 3 pages

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

 <p>INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)</p>	Docket Number (Optional) 08228.021001	Application Number 10/092,231
	Applicant(s) Shiro SAKAI	
	Filing Date 03/06/2002	Group Art Unit 2811

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JN	A1	4,985,113	01/15/1991	Fujimoto et al.	156	643	03/07/1990
	A2	5,874,747	02/23/1999	Redwing et al.	257	77	02/05/1996
	A3	6,103,604	08/15/2000	Bruno et al.	438	584	02/10/1997
	A4	6,172,382 B1	01/09/2001	Nagahama et al.	257	94	01/09/1998
	A5	6,191,436 B1	02/20/2001	Shibata et al.	257	91	03/12/1996
	A6	6,355,945 B1	03/12/2002	Kadota et al.	257	82	06/24/1999
	A7	6,429,102 B1	08/06/2002	Tsai et al.	438	508	02/03/2000
	A8	6,455,337 B1	09/24/2002	Sverdlov	438	22	06/27/2001
	A9	6,465,808 B2	10/15/2002	Lin	257	81	01/11/2001
	A10	2002/0036286A1	03/28/2002	Ho et al.	257	11	05/15/2000
	A11	2002/0042159A1	04/11/2002	Chiyo et al.	438	46	10/10/2001

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
JN	A12	JP407263408A	10/13/1995	Japan	H01L	021/3065	✓	
	A13	WO98/42030	09/24/1998	PCT	H01L	33/00		✓
	A14	WO98/44569	08/10/1998	PCT	H01L	33/00		✓
			7/10/98					

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	A15	European Search Report dated 11/27/2002 (4pages)

EXAMINER JOSEPH A. RUYEN	DATE CONSIDERED 7/31/03
------------------------------------	-----------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APR 11 2003

Docket Number (Optional)

08228.0256

Application Number

10/139,863

Applicant(s)

Shiro SAKAI

Filing Date

05/07/2002

Group Art Unit

2826

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
PB	A1	4,985,113	01/15/1991	Fujimoto et al.	156	643	03/07/1990
PC	A2	5,874,747	02/23/1999	Redwing et al.	257	77	02/05/1996
PC	A3	6,172,382 B1	01/09/2001	Nagahama et al.	257	94	01/09/1998
PC	A4	6,429,102 B1	08/06/2002	Tsai et al.	438	508	02/03/2000
PC	A5	6,455,337 B1	09/24/2002	Sverdlov	438	22	06/27/2001

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

SM L R

DATE CONSIDERED

05/12/02

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.